RAPLEYS

rapleys.com
0370 777 6292

# 44 Murray Road, Northwood, HA6 2YL

Daylight & Sunlight Amenity Study (Within) Analysis Report
prepared on behalf of Gavacan Homes Limited
Building Consultancy Group
Date: January 2023
Our Ref: 23-00131

## Contents



## Appendices



# 1 EXECUTIVE SUMMARY

1.1 We have been instructed to compile a BRE Daylight & Sunlight (Internal) Amenity Study regarding the proposed development at 44 Murray Road, Northwood, HA6 2YL. The proposals consist of the demolition of the current low rise properties on site to provide for a 5 unit scheme spread across 2.5 storeys.

1.2 We conducted a site visit in order to understand the proposal in context, allowing us to gain a greater understanding of the interrelationship between proposed and the various surrounding buildings.

1.3 We have reviewed the Local Authority's planning policy in respect of Daylight & Sunlight (see s.5).

1.4 On the basis of the above, we set about conducting an analysis in accordance with Building Research Establishment's Report 209 "Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice" (2022 3rd Edition). This guidance is regarded as industry standard, and we regularly prepare such studies for local authorities throughout the UK.

1.5 We have identified 15 habitable rooms within the proposed development. We have tested these to ensure they meet the targets for internal rooms within a proposed development, in accordance with the BRE guidelines.

1.6 The analysis has involved utilising specialist software applied on the AutoCAD model supplied.

1.7 The results of the SDA test confirm a compliance rate of 67%, with 10 of the 15 rooms tested meeting or surpassing their BRE recommended targets. Whilst 5 of the rooms fall short of their targets, there are 8 rooms that surpass their target by a large amount, providing excellent daylight as a result.

1.8 3 of the rooms that fall short of their targets are Living/Kitchen/Dining rooms. Given that these rooms are multi use spaces, they are larger than a single purpose room to accommodate the various uses. This can make it more difficult to achieve the target of 200 lux for a room with a kitchen element. It is also more often the case that the main use of the space is as a living room.

1.9 As such it is common to utilise a reduced target to match that of a living room, 150 lux, to reflect the more likely use of the space. The results of this alternative testing show that whilst the rooms do not meet the alternative target, they see an improvement in percentage terms.

1.10 The Sunlight Exposure (SE) results confirm that all units have at least one room that meets the BRE recommendations, the results of this analysis are therefore considered to be compliant.

1.11 With regard to the external amenity areas, there are no amenity areas proposed as part of this scheme that are relevant for testing.

1.12 It is important to note that the BRE guide explains that the numerical guidelines should be interpreted flexibly, since natural lighting is only one of many factors in site layout design. Combining this with The National Planning Policy Framework published recommendations on taking a flexible approach, we conclude that the results are acceptable.

## 2 PROPOSED DRAWINGS

2.1 The 3D computer model considers the following proposed design:

**ASCOT DESIGN**

| Drawings Ref | Description | Revision |
|---|---|---|
| 22-J4110 | (MASTER FILE) for DLSL - Copy | Rev - |
| 2092693-2195469-720-0 | Pro Map | Rev - |
| 01 – New Block DWG | Proposed Plans & Elevations | Rev - |

# 3 INTRODUCTION

## INSTRUCTIONS

3.1 We received instructions from Gavacan Homes Limited to prepare an BRE Daylight & Sunlight (Internal) Amenity Study in respect of the proposed development at 44 Murray Road, Northwood, HA6 2YL.

3.2 We confirm copies of our Terms of Engagement are held on file.

## CONFLICT OF INTEREST

3.3 We confirm that, as far as we are aware, no conflict of interest exists either personally or with Rapleys, in connection with Gavacan Homes Limited. We would further confirm that Professional Indemnity Insurance on a per claim basis is available in respect of this report.

## DISCLOSURE

3.4 This report is specifically for the addressee stated above.

## QUALITY ASSURANCE

3.5 This report has been prepared within the quality system operated at Rapleys LLP according to British Standard ISO 9001:2015.

3.6 We confirm that the undersigned is an appropriately qualified and experienced Surveyor, experienced in the commercial property sector.

| | |
|---|---|
| **Created by:** | Natasha Bray LLB (Hons)<br>Natasha.Bray@Rapleys.com |
| **Signature:** | N.Bray<br>N.Bray (Jan 23, 2023 11:24 GMT) |
| **Checked by:** | Felix Carter BA (Hons) PgDip<br>Felix.Carter@Rapleys.com |
| **Signature:** | Felix Carter<br>Felix Carter (Jan 23, 2023 11:25 GMT) |

## 4 BASIS OF ASSESSMENT

### DETAILS OF THE PROPOSALS

4.1 The proposals consist of the provision for a 5 unit scheme spread across 2.5 storeys.

4.2 The proposals we have analysed are those which were provided electronically by the project architect Ascot Design in DWG formats received via email on 17th January 2023. An initial set of PDF proposals were forwarded to us prior to this to assist our understanding of the proposals in general.

4.3 Rapleys have taken the information supplied upon which this report is based, in good faith, as being sufficiently accurate for these purposes. In the event inaccuracies become apparent, Rapleys would be willing to re visit the analysis subject to further instructions.

### SITE INSPECTION

4.4 The site and surrounding properties were inspected externally on 17th January by Natasha Bray LLB (Hons). During the inspection Natasha was unaccompanied.

4.5 To identify where there may be a Daylight & Sunlight Amenity issue, we used the approach outlined within BRE Report 209: Site Layout Planning for Daylight and Sunlight – a guide to good practice (3rd edition 2022). This states:

> *"Loss of light to existing windows need not be analysed if the distance of each part of the new development from the existing window is three or more times its height above the centre of the existing window. In these cases the loss of light will be small. Thus if the new development were 10m tall, and a typical existing ground floor window would be 1.5m above the ground, the effect on existing buildings more than 3 x (10 – 1.5) = 25.5m away need not be analysed."*

### RELEVANT NEIGHBOURING PROPERTIES

4.6 The properties considered as neighbouring obstructions to the proposed development are as follows:

- Lingfield Close – A three storey property containing residential flats located Southwest of the proposed development site.
- 42 & 40B Murray Road – A series of two storey houses located Northwest of the proposed development site.
- 40 Murray Road – A two storey house located North of the proposed development site.
- 57A & 57 B Murray Road – A series of two storey houses located to the East of the proposed development site.
- St Johns Court – A two storey property containing residential accommodation (Assisted Living) located Southeast of the proposed development site.

4.7 These properties together with other relevant obstructions can be viewed in the identification drawings, contained within Appendix 1.

### BACKGROUND TO THE ANALYSIS

4.8 In order to undertake the analysis a 3D computer model was drawn in AutoCAD for the development site and the surrounding properties.

4.9 This was based upon site and drawing information provided by the client and their architect, supplemented by information gathered from the photographs of the subject area taken during our site visit.

4.10 Details of the proposals forwarded by the design team were incorporated into a 3D AutoCAD model.

4.11 Thereafter, industry standard Daylight and Sunlight analysis software was applied to the model. This produced the results which have been presented and commented upon within this report.

# 5 DAYLIGHT & SUNLIGHT AMENITY

## PLANNING GUIDANCE

5.1 Through the planning process the local authority will wish to be reassured that the construction of the proposed development will not harm the residential neighbours' daylight and sunlight.

5.2 The Local Development Plan identified as being relevant to our review is the London Borough of Hillingdon – Local Plan Part 2: Development Management Policies (Adopted Version 16 January 2020).

5.3 This document makes specific reference to Daylight & Sunlight in the following clauses:

Design of New Development

> *5.41 - The Council will aim to minimise the impact of the loss of daylight and sunlight and unacceptable overshadowing caused by new development on habitable rooms, amenity space and public open space. The Council will also seek to ensure that the design of new development optimises the levels of daylight and sunlight. The Council will expect the impact of the development to be assessed following the methodology set out in the most recent version of the Building Research Establishments (BRE) "Site layout planning for daylight and sunlight: A guide to good practice".*

## NATIONAL PLANNING POLICY FRAMEWORK

5.4 It is important to also take note of paragraph 123(c) of the NPPF, for completeness this states:

> *Where there is an existing or anticipated shortage of land for meeting identified housing needs, it is especially important that planning policies and decisions avoid homes being built at low densities, and ensure that developments make optimal use of the potential of each site. In these circumstances:*
>
> *c) local planning authorities should refuse applications which they consider fail to make efficient use of land, taking into account the policies in this Framework. In this context, when considering applications for housing, authorities should take a flexible approach in applying policies or guidance relating to daylight and sunlight, where they would otherwise inhibit making efficient use of a site (as long as the resulting scheme would provide acceptable living standards).*

## 6 ASSESSMENT GUIDELINES

6.1 BRE Report 209 *Site Layout Planning for Daylight and Sunlight – a guide to good practice Third Edition 2022*, provides guidance to designers, clients, consultants and planning officials on laying out proposed development sites, to ensure that the rooms within the proposed development are adequately well lit for future occupiers. This document is widely used in the construction industry.

6.2 An important point to note contained within the introduction of the BRE Report is:

> *"The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of the main factors in site layout design. In special circumstances the developer or planning authority may wish to use different target values. For example, in a historic city centre, or in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable..."*

6.3 The BRE guide sets out recommendations for light levels within particular rooms, these guidelines are intended to be applied flexibly. Accordingly, in some cases there may be special requirements for daylight or sunlight; this could increase or reduce the recommendations for particular rooms.

### SPATIAL DAYLIGHT AUTONOMY (SDA)

6.4 The Spatial Daylight Autonomy test is also referred to as the Illuminance Method. It involves using climate data (based on weather data collected every hour across various locations since the 1980s).

6.5 This information is used to calculate the illuminance from daylight at each point on an assessment grid placed within the room at the working plane at hourly intervals for a typical year.

6.6 Target illuminance (ET) for bedrooms is 100 lx, for living rooms, 150 lx and kitchens, 200 lx.

6.7 These levels should be achieved across at least 50% of the working plane in a daylit space for at least half of the possible daylight hours (4,380 hours).

### SUNLIGHT EXPOSURE (SE)

6.8 The BRE guide requires that the sunlight testing is applied to rooms of all orientations, noting that rooms facing north of due east or west are unlikely to meet the targets.

6.9 BS EN 17037 recommends that a space should receive a minimum of 1.5 hours of direct sunlight on the 21 March (equinox).

6.10 For dwellings, at least one habitable room, preferably a main living room, should meet at least the minimum criterion.

6.11 The orientation of the site will play a big role in the proposal's compliance with this test. Obviously not all sites are well situated to receive direct sunlight, so a flexible approach is recommended on this basis.

### 2HR SUNLIGHT TO AMENITY (OVERSHADOWING TO GARDENS AND OPEN SPACES)

6.12 The BRE guide recommends that at least 50% of the area of each amenity space should receive at least two hours of sunlight on 21st March. The availability of sunlight should be checked for all open spaces where sunlight is required.

# 7 FINDINGS OF THE ANALYSIS

## RESULTS

7.1 The SDA results are presented in tables and illustrated as contour drawings shown in Appendices 1 & 2. SE results are contained within Appendix 3. Overshadowing to gardens and open spaces results are contained within appendix 4. The 2hr Amenity drawings are contained in appendix 5.

7.2 Reflectance Values Table:

| Layer Name | Reflectance Value |
|---|---|
| External Wall/obstructions | 0.200 |
| Internal Ceiling | 0.800 |
| Internal Floor | 0.400 |
| Internal Wall | 0.700 |
| Terrain | 0.200 |

7.3 The following section contains commentary on the results from the analysis.

## 8 COMMENTARY ON RESULTS

### SPATIAL DAYLIGHT AUTONOMY (SDA) RESULTS

8.1 Further review of the rooms falling short of their targets revealed that 3 of the rooms were living/kitchen/dining rooms. As previously mentioned within the executive summary, with multi-use spaces it is often the case that these rooms are larger to accommodate their multipurpose use and to allow for more desirable 'open plan layouts'.

8.2 It is therefore commonly accepted that rooms that serve multiple purposes will naturally find it more difficult to achieve higher levels of daylight. As such it is often the case that a reduction in target for this room type from 200 lux to 150 lux is appropriate. To reflect the use of a living room, which is generally how the space is used most.

8.3 We have therefore conducted an additional assessment on the basis of this alternative target. The results of this analysis show that whilst the rooms do not meet the alternative target, they do see an improvement in percentage terms.

8.4 Whilst the results are not fully compliant, they do demonstrate a reasonable level of compliance that is not unusual for this style of development.

### SUNLIGHT EXPOSURE (SE) RESULTS

8.5 The Sunlight Exposure (SE) results confirm that all units have at least one room that meets the BRE recommendations, the results of this analysis are therefore considered to be compliant.

### 2HR SUNLIGHT TO AMENITY (OVERSHADOWING TO GARDENS AND OPEN SPACES)

8.6 With regard to external amenity area testing, there are no amenity areas proposed as part of this scheme that are relevant for testing.

# 9 CONCLUSIONS

9.1 The results confirm that the rooms within the majority of the rooms within the proposed development will receive satisfactory levels of daylight and sunlight.

9.2 There are some shortfalls identified under the SDA test, however the compliance rate following the alternative testing is 67%. This level of performance of this site is considered to be commensurate with the area and style of development generally.

9.3 The main reason for the shortfalls identified is that the LKD rooms serve multiple purposes and this has resulted in larger/deeper rooms. This, however, will have other benefits in terms of quality of living space aside from daylight achievement.

9.4 It is important to remember that the recommendations set out within the BRE guide are not mandatory. Drawing directly from the BRE guide:

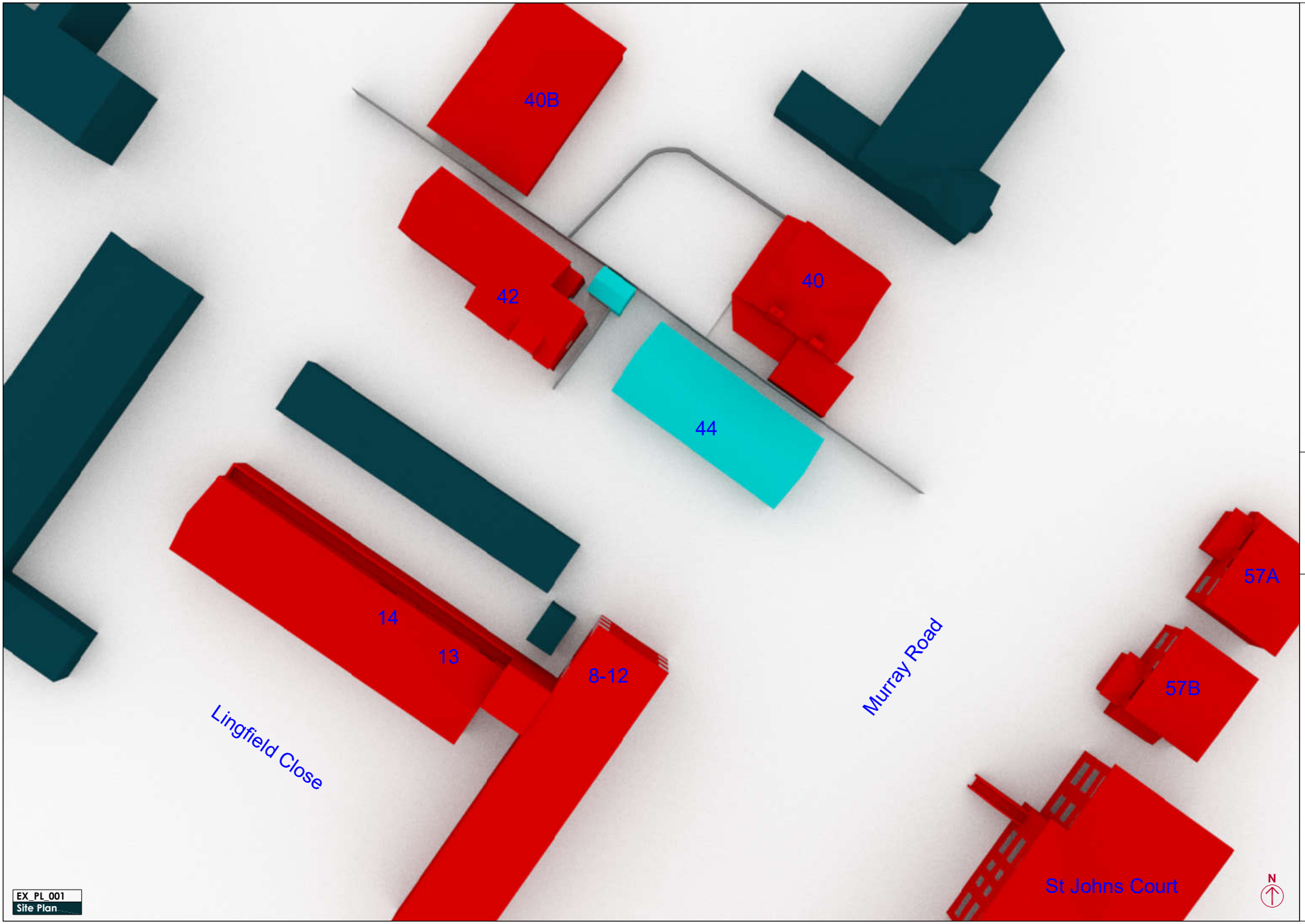
*"The guide is intended for building designers and their clients, consultants and planning officials. The advice given is not mandatory and this document should not be considered as an instrument of planning policy. Its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly because natural lighting is only one of the many factors in site layout design."*

9.5 In addition to this, consideration should be had for the National Planning Policy Framework recommendations on taking a flexible approach relating to Daylight and Sunlight, where making efficient use of a site is at risk.

9.6 Having considered all of the relevant factors in this case, we are of the opinion that the results show a reasonable level of compliance. The majority of the units within the proposed buildings have good access to light.

Appendix 01

# Identification Drawings (200 Lux)




EX_PL_001
Site Plan

**Source Data**

**Testing Environment:**
Site Photographs
(captured 17.01.23)

Topographical Survey
KND Surveys Ltd (August 20:

OS Data - (source Promap)

**Existing Building:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Proposed Scheme:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Key**
- **Analysed Building**
- **Demolish/Existing**
- **Proposed**
- **Surrounding**

**Notes**

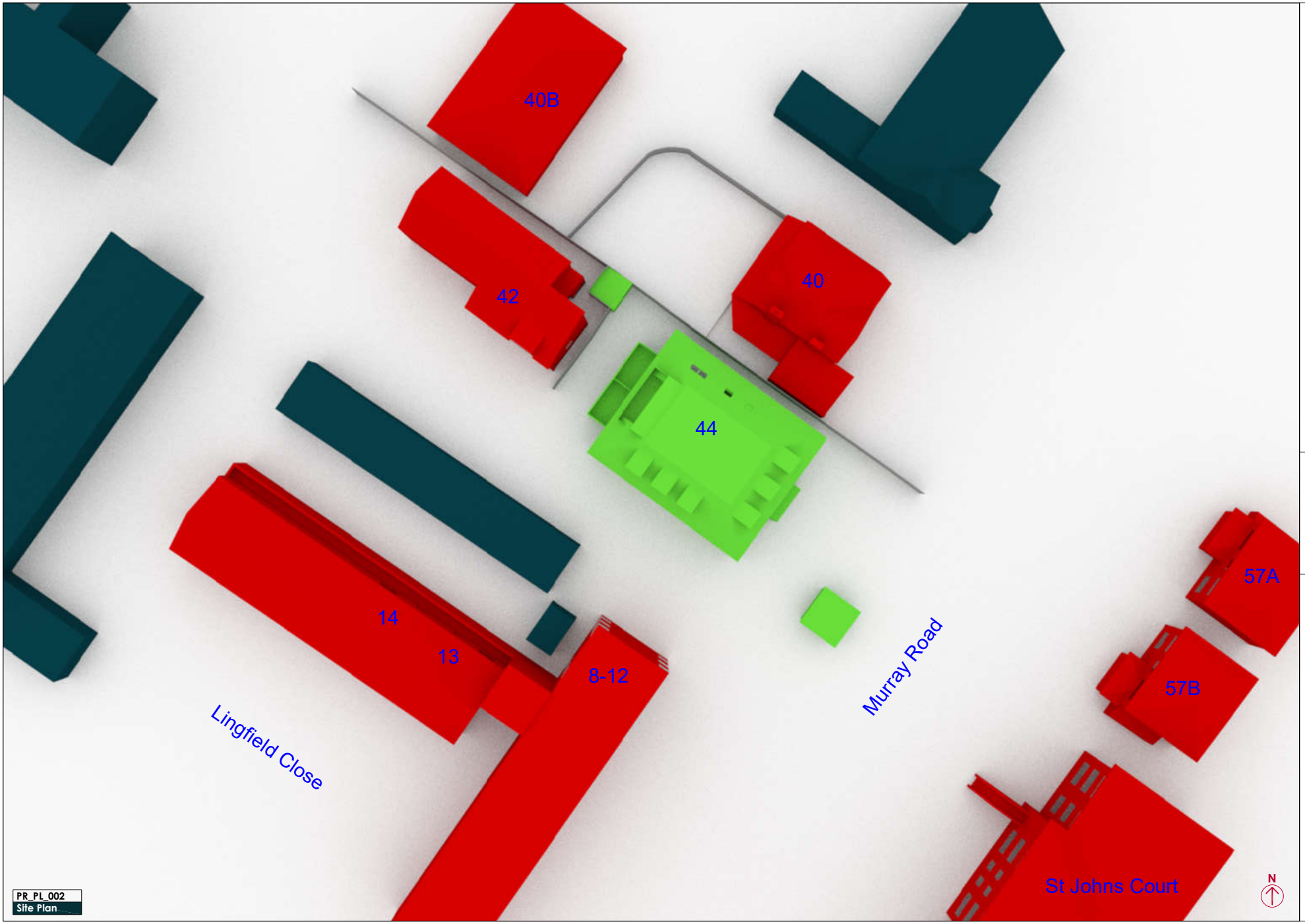
Client
**Gavacan Homes**

Job Title
**23-00131 -**
**44 Murray Road**
**Northwood HA6 2YL**

Drawing Title
**Existing Site Plan**

| Scale | Date | Drawn |
|---|---|---|
| NTS | Jan-23 | MF |

RAPLEYS
66 St James's Street,
St James's, London SW1A 1NE
Tel: 0370 777 6292 www.rapleys.com




PR_PL_002
Site Plan

**Source Data**

**Testing Environment:**
Site Photographs
(captured 17.01.23)

Topographical Survey
KND Surveys Ltd (August 20

OS Data - (source Promap)

**Existing Building:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Proposed Scheme:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Key**

- **Analysed Building**
- **Demolish/Existing**
- **Proposed**
- **Surrounding**

**Notes**

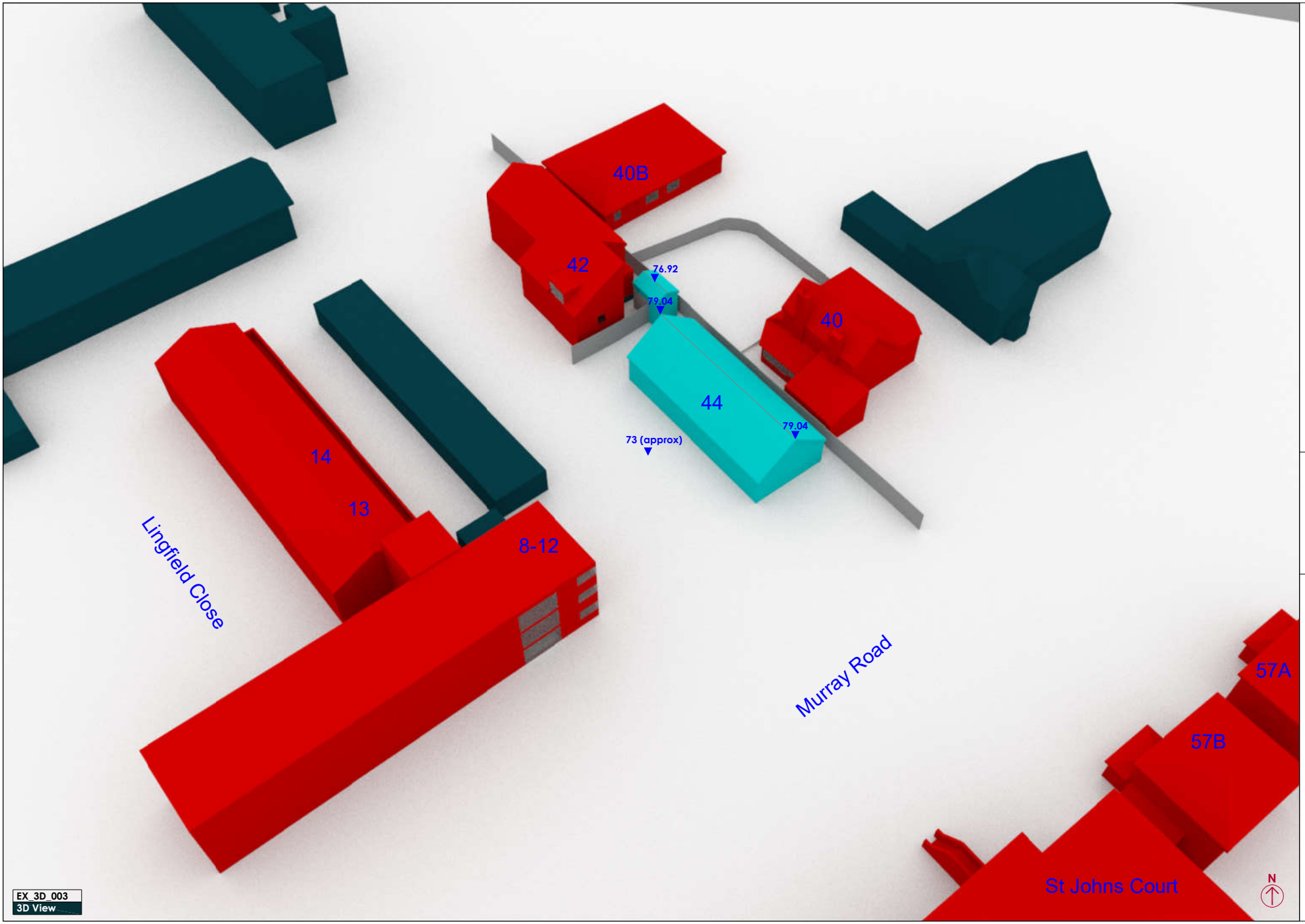
Client
**Gavacan Homes**

Job Title
**23-00131 -**
**44 Murray Road**
**Northwood HA6 2YL**

Drawing Title
**Proposed Site Plan**

| Scale | Date | Drawn |
|---|---|---|
| NTS | Jan-23 | MF |

RAPLEYS
66 St James's Street,
St James's, London SW1A 1NE
Tel: 0370 777 6292 www.rapleys.com




EX_3D_003
3D View

**Source Data**

**Testing Environment:**
Site Photographs
(captured 17.01.23)

Topographical Survey
KND Surveys Ltd (August 20

OS Data - (source Promap)

**Existing Building:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Proposed Scheme:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Key**

- Analysed Building
- Demolish/Existing
- Proposed
- Surrounding

▼ - Spot Heights

**Notes**

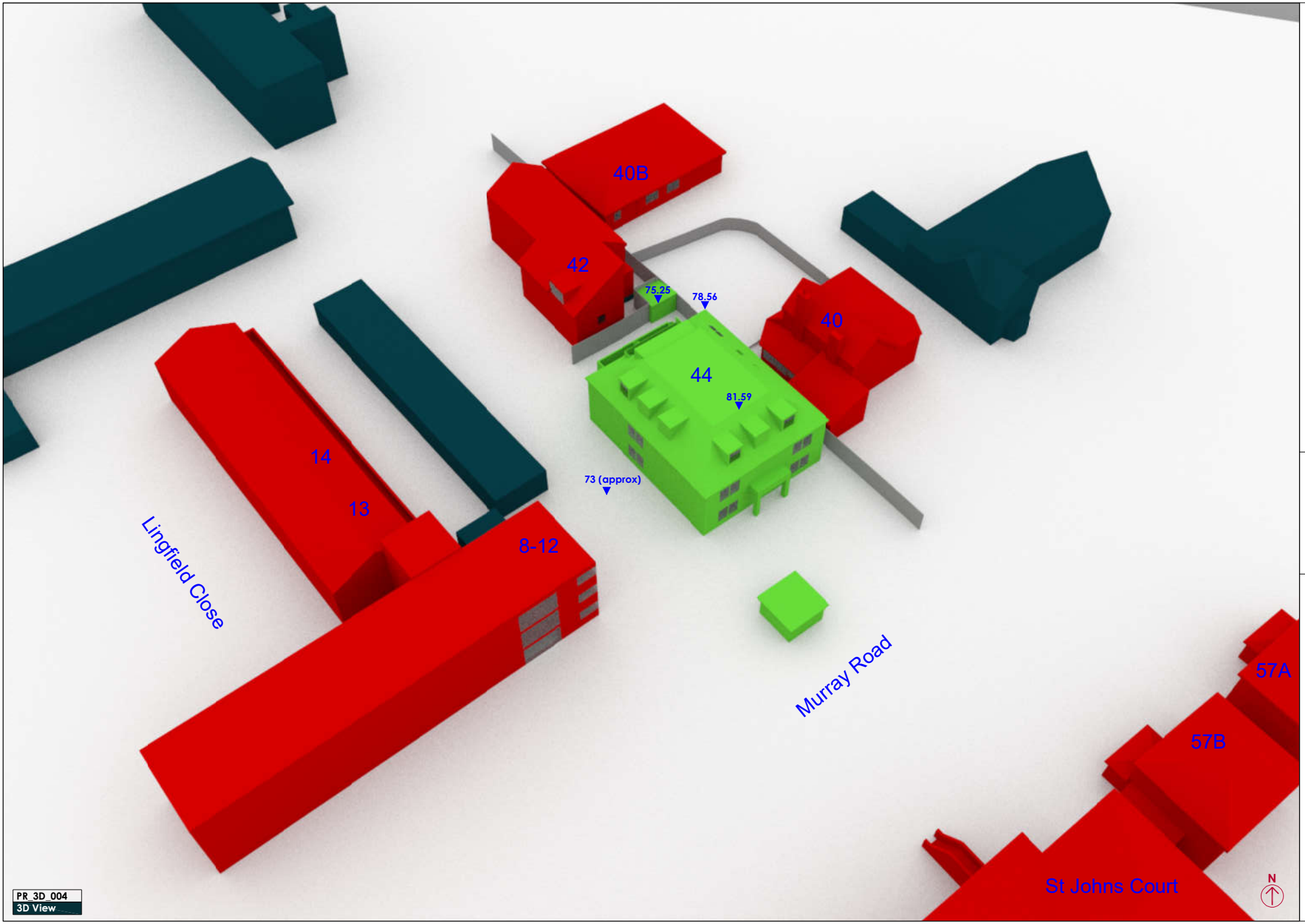
Client
Gavacan Homes

Job Title
23-00131 -
44 Murray Road
Northwood HA6 2YL

Drawing Title
3D View - Existing

| Scale | Date | Drawn |
|---|---|---|
| NTS | Jan-23 | MF |

RAPLEYS
66 St James's Street,
St James's, London SW1A 1NE
Tel: 0370 777 6292 www.rapleys.com




PR_3D_004
3D View

**Source Data**

**Testing Environment:**
Site Photographs
(captured 17.01.23)

Topographical Survey
KND Surveys Ltd (August 20

OS Data - (source Promap)

**Existing Building:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Proposed Scheme:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Key**

- Analysed Building
- Demolish/Existing
- Proposed
- Surrounding

▼ - Spot Heights

**Notes**

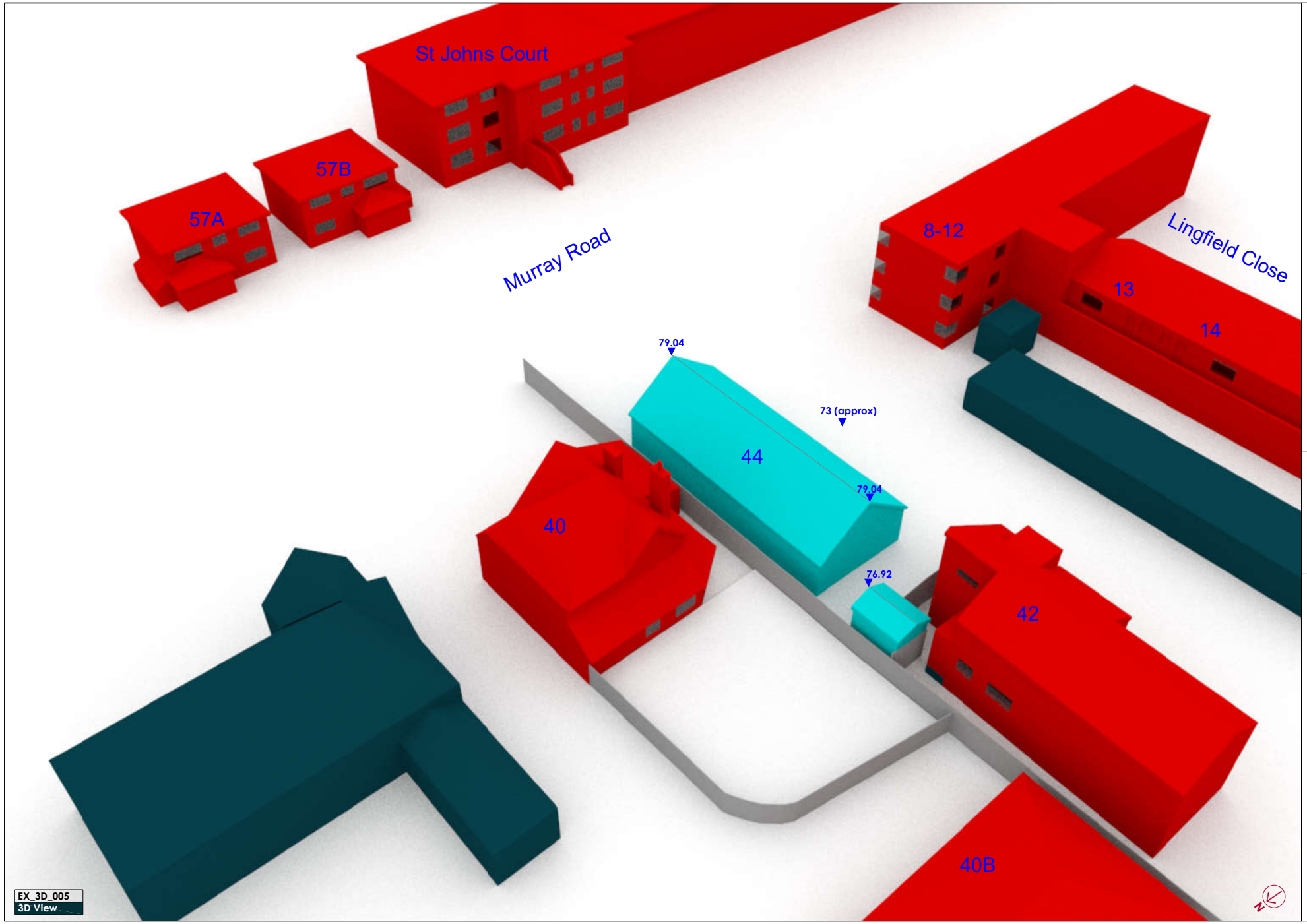
Client
Gavacan Homes

Job Title
23-00131 -
44 Murray Road
Northwood HA6 2YL

Drawing Title
3D View - Proposed

| Scale | Date | Drawn |
|---|---|---|
| NTS | Jan-23 | MF |

RAPLEYS
66 St James's Street,
St James's, London SW1A 1NE
Tel: 0370 777 6292 www.rapleys.com




**Source Data**

**Testing Environment:**
Site Photographs
(captured 17.01.23)

Topographical Survey
KND Surveys Ltd (August 20

OS Data - (source Promap)

**Existing Building:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Proposed Scheme:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Key**

- Analysed Building
- Demolish/Existing
- Proposed
- Surrounding

▼ - Spot Heights

**Notes**

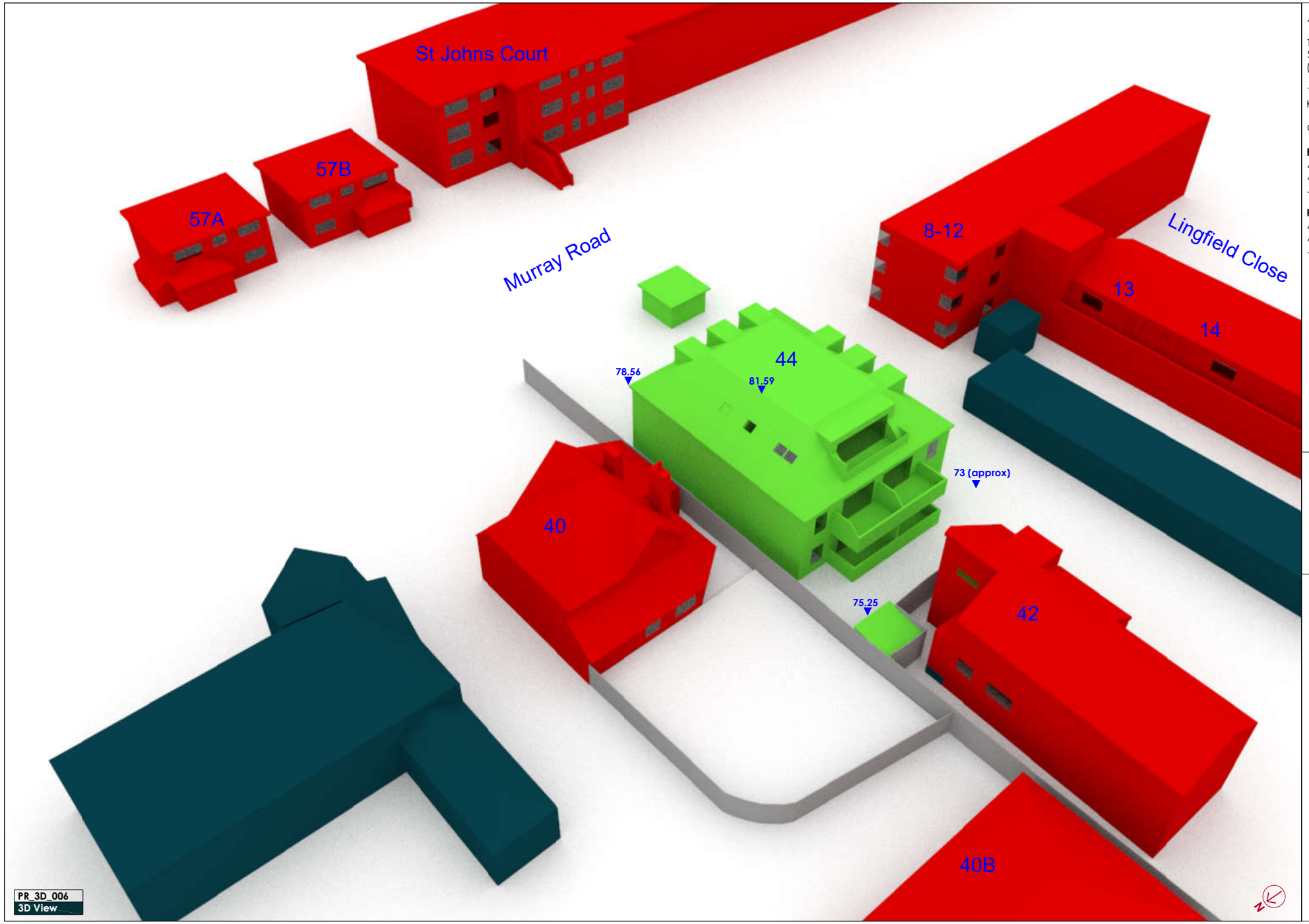
Client
Gavacan Homes

Job Title
23-00131 -
44 Murray Road
Northwood HA6 2YL

Drawing Title
3D View - Existing

| Scale | Date | Drawn |
|---|---|---|
| NTS | Jan-23 | MF |

RAPLEYS
66 St James's Street,
St James's, London SW1A 1NE
Tel: 0370 777 6292 www.rapleys.com




**Source Data**

**Testing Environment:**
Site Photographs
(captured 17.01.23)

Topographical Survey
KND Surveys Ltd (August 20

OS Data - (source Promap)

**Existing Building:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Proposed Scheme:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Key**

- Analysed Building
- Demolish/Existing
- Proposed
- Surrounding

▼ - Spot Heights

**Notes**

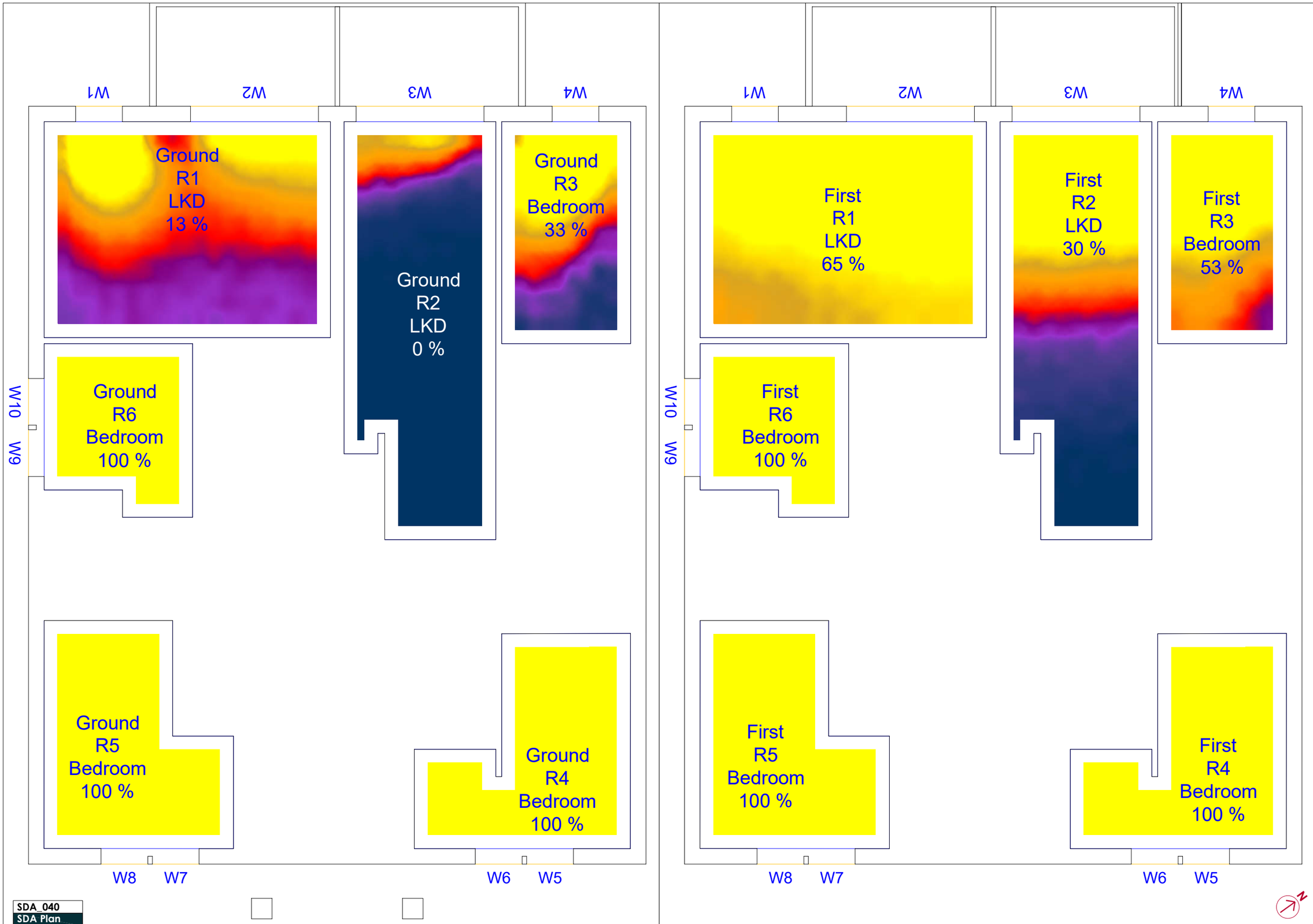
Client
Gavacan Homes

Job Title
23-00131 -
44 Murray Road
Northwood HA6 2YL

Drawing Title
3D View - Proposed

| Scale | Date | Drawn |
|---|---|---|
| NTS | Jan-23 | MF |

RAPLEYS
66 St James's Street,
St James's, London SW1A 1NE
Tel: 0370 777 6292 www.rapleys.com




SDA_040
SDA Plan

**Source Data**

**Testing Environment:**
Site Photographs
(captured 17.01.23)

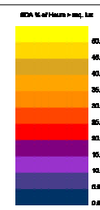
Topographical Survey
KND Surveys Ltd (August 202

OS Data - (source Promap)

**Existing Building:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Proposed Scheme:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Notes**



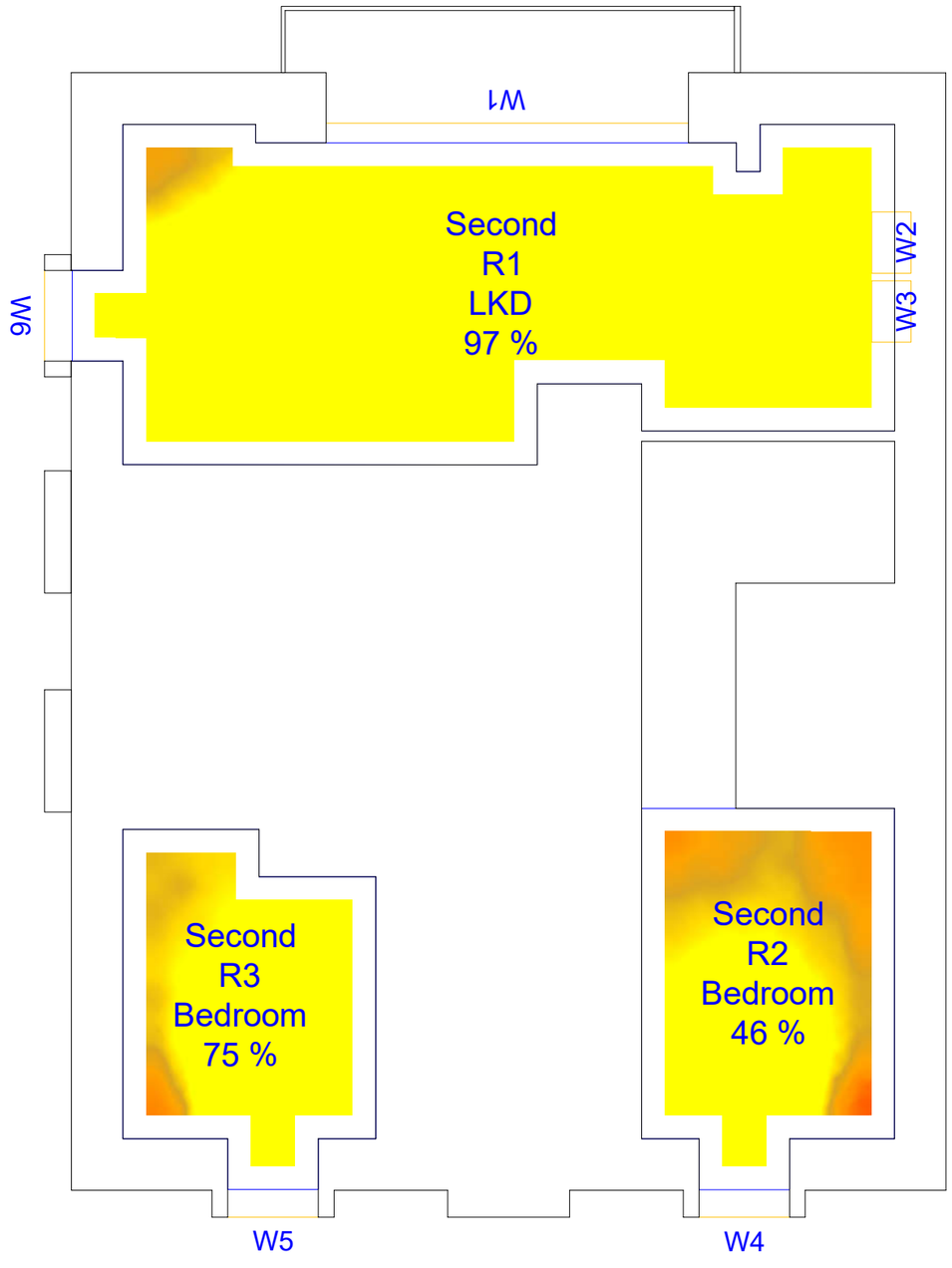
Client
**[insert Client Name]**

Job Title
**23-00131 -**
**44 Murray Road**
**Northwood HA6 2YL**

Drawing Title
**Spatial Daylight Autonomy (LKD 200 LUX)**

| Scale | Date | Drawn |
|---|---|---|
| NTS | Jan-23 | MF |

RAPLEYS
66 St James's Street,
St James's, London SW1A 1NE
Tel: 0370 777 6292 www.rapleys.com




SDA_041
SDA Plan

**Source Data**

**Testing Environment:**
Site Photographs
(captured 17.01.23)

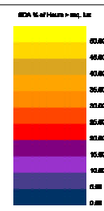
Topographical Survey
KND Surveys Ltd (August 202

OS Data - (source Promap)

**Existing Building:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Proposed Scheme:**
Ascot Design Timeless
Architecture Ltd
January 2023

**Notes**



Client
**[insert Client Name]**

Job Title
**23-00131 -**
**44 Murray Road**
**Northwood HA6 2YL**

Drawing Title
**Spatial Daylight Autonomy (LKD 200 LUX)**

| Scale | Date | Drawn |
|---|---|---|
| NTS | Jan-23 | MF |

RAPLEYS
66 St James's Street,
St James's, London SW1A 1NE
Tel: 0370 777 6292 www.rapleys.com

Appendix 02

# Spatial Daylight Autonomy (SDA) Results Tables (200 Lux)

Project Name: 44 Murray Road, Northwood, HA6 2YL
Project No.: 23-00131
Report Title: SDA BS En17037 Analysis - Proposed Scheme - 200 Lux
Date of Analysis: January 2023

| | | | | | | | | | Criteria | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor Ref | Room Ref | Property Type | Room Use | Room Area m2 | Effective Area | Median Lux | Area Meeting Req Lux | % of Area Meeting Req Lux | Req Lux | Req % of Effective Area | Req % of Daylight Hours | Daylight Hours | Meets Criteria |
| **Proposed scheme** | | | | | | | | | | | | | |
| Ground | R1 | Residential | LKD | 29.65 | 23.41 | 103 | 3.08 | 13% | 200 | 50% | 50% | 4380 | NO |
| | R2 | Residential | LKD | 28.67 | 21.28 | 21 | 0.00 | 0% | 200 | 50% | 50% | 4380 | NO |
| | R3 | Residential | Bedroom | 13.71 | 9.46 | 65 | 3.07 | 33% | 100 | 50% | 50% | 4380 | NO |
| | R4 | Residential | Bedroom | 17.35 | 11.69 | 247 | 11.69 | 100% | 100 | 50% | 50% | 4380 | YES |
| | R5 | Residential | Bedroom | 17.34 | 12.22 | 256 | 12.22 | 100% | 100 | 50% | 50% | 4380 | YES |
| | R6 | Residential | Bedroom | 11.35 | 7.47 | 327 | 7.47 | 100% | 100 | 50% | 50% | 4380 | YES |
| First | R1 | Residential | LKD | 29.65 | 23.41 | 244 | 15.14 | 65% | 200 | 50% | 50% | 4380 | YES |
| | R2 | Residential | LKD | 28.67 | 21.28 | 89 | 6.42 | 30% | 200 | 50% | 50% | 4380 | NO |
| | R3 | Residential | Bedroom | 13.71 | 9.46 | 106 | 4.97 | 53% | 100 | 50% | 50% | 4380 | YES |
| | R4 | Residential | Bedroom | 17.35 | 11.69 | 294 | 11.69 | 100% | 100 | 50% | 50% | 4380 | YES |
| | R5 | Residential | Bedroom | 17.34 | 12.22 | 288 | 12.22 | 100% | 100 | 50% | 50% | 4380 | YES |
| | R6 | Residential | Bedroom | 11.35 | 7.47 | 415 | 7.47 | 100% | 100 | 50% | 50% | 4380 | YES |
| Second | R1 | Residential | LKD | 38.74 | 29.52 | 526 | 28.65 | 97% | 200 | 50% | 50% | 4380 | YES |
| | R2 | Residential | Bedroom | 14.23 | 9.75 | 99 | 4.53 | 46% | 100 | 50% | 50% | 4380 | NO |
| | R3 | Residential | Bedroom | 12.46 | 8.15 | 127 | 6.07 | 75% | 100 | 50% | 50% | 4380 | YES |

Appendix 03

# Spatial Daylight Autonomy (SDA) Results Tables (150 Lux)

Project Name: 44 Murray Road, Northwood, HA6 2YL
Project No.: 23-00131
Report Title: SDA BS En17037 Analysis - Proposed Scheme - 150 Lux
Date of Analysis: 20/01/2023

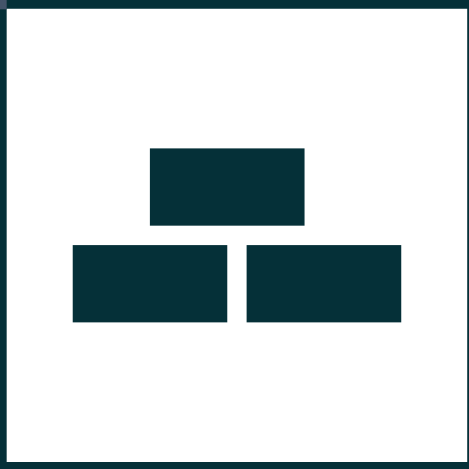
| | | | | | | | | | Criteria | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Floor Ref | Room Ref | Property Type | Room Use | Room Area m2 | Effective Area | Median Lux | Area Meeting Req Lux | % of Area Meeting Req Lux | Req Lux | Req % of Effective Area | Req % of Daylight Hours | Daylight Hours | Meets Criteria |
| Proposed scheme | | | | | | | | | | | | | |
| Ground | R1 | Residential | LKD | 29.65 | 23.41 | 103 | 5.72 | 24% | 150 | 50% | 50% | 4380 | NO |
| | R2 | Residential | LKD | 28.67 | 21.28 | 21 | 0.63 | 3% | 150 | 50% | 50% | 4380 | NO |
| | R3 | Residential | Bedroom | 13.71 | 9.46 | 65 | 3.07 | 33% | 100 | 50% | 50% | 4380 | NO |
| | R4 | Residential | Bedroom | 17.35 | 11.69 | 247 | 11.69 | 100% | 100 | 50% | 50% | 4380 | YES |
| | R5 | Residential | Bedroom | 17.34 | 12.22 | 256 | 12.22 | 100% | 100 | 50% | 50% | 4380 | YES |
| | R6 | Residential | Bedroom | 11.35 | 7.47 | 327 | 7.47 | 100% | 100 | 50% | 50% | 4380 | YES |
| First | R1 | Residential | LKD | 29.65 | 23.41 | 244 | 22.71 | 97% | 150 | 50% | 50% | 4380 | YES |
| | R2 | Residential | LKD | 28.67 | 21.28 | 89 | 8.02 | 38% | 150 | 50% | 50% | 4380 | NO |
| | R3 | Residential | Bedroom | 13.71 | 9.46 | 106 | 4.97 | 53% | 100 | 50% | 50% | 4380 | YES |
| | R4 | Residential | Bedroom | 17.35 | 11.69 | 294 | 11.69 | 100% | 100 | 50% | 50% | 4380 | YES |
| | R5 | Residential | Bedroom | 17.34 | 12.22 | 288 | 12.22 | 100% | 100 | 50% | 50% | 4380 | YES |
| | R6 | Residential | Bedroom | 11.35 | 7.47 | 415 | 7.47 | 100% | 100 | 50% | 50% | 4380 | YES |
| Second | R1 | Residential | LKD | 38.74 | 29.52 | 526 | 29.37 | 99% | 150 | 50% | 50% | 4380 | YES |
| | R2 | Residential | Bedroom | 14.23 | 9.75 | 99 | 4.53 | 46% | 100 | 50% | 50% | 4380 | NO |
| | R3 | Residential | Bedroom | 12.46 | 8.15 | 127 | 6.07 | 75% | 100 | 50% | 50% | 4380 | YES |

Appendix 04

# Sunlight Exposure (SE) Results Tables

Project Name: 44 Murray Road, Northwood, HA6 2YL
Project No.: 23-00131
Report Title: Sunlight Exposure Analysis - Proposed Scheme
Date: January 2023

| Floor Ref | Room Ref | Property Type | Room Use | Window Ref | Window Orientation | Proposed Sunlight Exposure (Hours) | Rating |
|---|---|---|---|---|---|---|---|
| Proposed scheme | | | | | | | |
| Ground | R1 | Residential | LKD | W1 | 306°N | 0.5 | |
| | | | | W2 | 306°N | 2 | |
| | | | | | | 2 | Minimum |
| Ground | R2 | Residential | LKD | W3 | 306°N | 0 | |
| | | | | | | 0 | Failed |
| Ground | R3 | Residential | Bedroom | W4 | 306°N | 0.5 | |
| | | | | | | 0.5 | Failed |
| Ground | R4 | Residential | Bedroom | W5 | 126° | 4.9 | |
| | | | | W6 | 126° | 4.4 | |
| | | | | | | 4.9 | High |
| Ground | R5 | Residential | Bedroom | W7 | 126° | 4.9 | |
| | | | | W8 | 126° | 4.9 | |
| | | | | | | 4.9 | High |
| Ground | R6 | Residential | Bedroom | W9 | 216° | 5.8 | |
| | | | | W10 | 216° | 6 | |
| | | | | | | 6 | High |
| First | R1 | Residential | LKD | W1 | 306°N | 0.5 | |
| | | | | W2 | 306°N | 2 | |
| | | | | | | 2 | Minimum |
| First | R2 | Residential | LKD | W3 | 306°N | 1.6 | |
| | | | | | | 1.6 | Minimum |
| First | R3 | Residential | Bedroom | W4 | 306°N | 0 | |
| | | | | | | 0 | Failed |
| First | R4 | Residential | Bedroom | W5 | 126° | 4.9 | |
| | | | | W6 | 126° | 4.9 | |
| | | | | | | 4.9 | High |
| First | R5 | Residential | Bedroom | W7 | 126° | 4.9 | |
| | | | | W8 | 126° | 4.9 | |
| | | | | | | 4.9 | High |
| First | R6 | Residential | Bedroom | W9 | 216° | 5.8 | |
| | | | | W10 | 216° | 5.9 | |
| | | | | | | 5.9 | High |
| Second | R1 | Residential | LKD | W1 | 306°N | 2.3 | |
| | | | | W2 | 36°N Inc | 2 | |
| | | | | W3 | 36°N Inc | 0 | |
| | | | | W6 | 216° | 6 | |
| | | | | | | 8 | High |
| Second | R2 | Residential | Bedroom | W4 | 126° | 5 | |
| | | | | | | 5 | High |
| Second | R3 | Residential | Bedroom | W5 | 126° | 5 | |
| | | | | | | 5 | High |



For further details contact:

Natasha Bray LLB (Hons)
Natasha.Bray@rapleys.com
07789 928499